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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,603	09/12/2006	Shaocheng Wang	1991.74505	6223
24978	7590	11/28/2008		
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			EXAMINER WILSON, ADRIAN S	
			ART UNIT 2835	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,603	Applicant(s) WANG ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 9 is/are rejected.
- 7) ☒ Claim(s) 3-8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/09/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10 have been considered for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu Xiangdi (Chinese Patent 2578935) (from IDS) and Lin et al. (US Patent 6,553,625 B2) (from IDS) and further in view of Jeong (US Patent 6,813,147 B2).
4. In re Claim 1, Xiangdi discloses a portable videodisc player with an upwardly and axially rotatable screen, comprising: a main body 10 comprising a display cover board 1 with a display screen 11; an upturn hinge means (See Figure 3) is disposed at a side edge of the main body 10 and a side edge of the display cover board 1; a cable connects the main body and the display cover board 1; wherein the main body 10 of the upturn hinge means (See Figure 3) is a T-shaped cannula, an end 3 of a horizontal end of the cannula is a hollow pipe 31 for accommodating cables; a cable (Xiangdi, para 0027) passes through an inner hole 41 of the main body 10 of the upturn hinge means to connect the main body 10 of the player and the display cover board 1; the display cover board 1 is rotatable within 180 degrees relative to the respective vertical and horizontal axes of its main body 10. Xiangdi does not disclose a hole in an opposite end of the cannula that accommodates a damper, forming a shaft with a damper, which

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is fixed on the side of the display cover board where a vertical end is used as a rotation shaft which is mounted on the main body. However, dampers and rotation shafts to rotate a display cover board relative to a main body of a portable videodisc player are common in the art of portable electronics. For example, Lin discloses a hole 26 in an opposite end of a T-shaped cannula 40 that accommodates a damper 30, forming a shaft 14 with a damper 30, which is fixed on the side of a display cover board where a vertical end 62 is used as a rotation shaft which is mounted on a main body. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to have combined the damper and rotation shaft as disclosed in Lin with the upturn hinge assembly as disclosed by Xiangdi. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. *See KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007). The addition of a damper would provide a more controlled rotation of the display cover board and the addition of a rotation shaft would provide a more rigid and secure mechanical connection between the display cover board and the main body of the portable videodisc player.

Xiangdi does not explicitly disclose a disc driver means and a disc information read/processing means in the portable videodisc player. However, disc driver means and disc information read/processing means are common in the art of portable electronics. For example, Jeong discloses a portable videodisc player that comprises a

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disc driver means 151 and a disc information read/processing means 153. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide a disc driving and processing means as taught by Jeong, since Xiangdi suggests that a display screen could be used to display a video signal generated from an input unit. Xiangdi, paras. 0025-0026. The use of a disc drive and cd/dvd reader would allow the disc player to show video on a display screen.

5. In re Claim 9, Xiangdi and Lin disclose all the limitations of Claim 1 above, but do not explicitly disclose a two-way lock latch with a corresponding button hook to form a two-way locking means between a display cover board and a main body of a portable device. However, the examiner takes official notice of facts outside the record, that a two-way lock latches and button hooks were well known in the art of portable electronics at the time of the invention, because of there ability to form a secure and two-way locking means between a display cover board and a main body of a portable device. Therefore, it would have been obvious to a person having ordinary skill in the art of portable electronics at the time of the invention to use a latch and button hook to make a locking means between a display cover board and a main body of a portable disc player as disclosed in Xiangdi, in order to provide a secure connection between the main body and display cover of the portable device.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Xu Xiangdi (Chinese Patent 2578935) (from IDS), Lin et al. (US Patent 6,553,625 B2) (from IDS) and Jeong (US Patent 6,813,147 B2) and still further in view of Choi (US Patent 6,867,961 B2).

In re Claim 2, Xiangdi discloses an end of the horizontal end 3 of the upturn hinge is a hollow pipe 31 for accommodating cables and extends into a sidewall of a display cover board 1 to enable the hinge, and an opposite end 3 is secured to another side wall of the display cover board 1. Xiangdi also discloses a center of a back wall of an upper surface of a main body 10 having an upright hole (See Figure 5). Lin discloses a turning free end of a damper 14, 30 received in a display cover board. Xiangdi and Lin do not explicitly disclose a recess for mounting a horizontal end of an upturn hinge. However, such recesses are very common in the art of portable electronics. For example, Choi discloses a recess 24a in a center of a rear end of a display cover board 24; a horizontal end of the body 28 of an upturn hinge means is disposed in the recess 24a. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to have combined the recess as disclosed in Choi with the portable disc player as disclosed by Xiangdi. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. *See KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007). The addition of a recess in a display cover board would allow the hinge as disclosed in Xiangdi to be effectively concealed within the display cover board while maintaining a secure mechanical connection.

Allowable Subject Matter

7. Claims 3, 4, 6 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter. The specific limitations of "there is a slot set in an inside wall of the horizontal end of the upturn hinge means for installing the damper, said head having rub pieces of the damper inserts into the above end of the upturn hinge means and the protruding ridge is fastened to said slot; and the damper is fixed onto the back of side wall of the recess of the display cover board" in Claim 3 is not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of " further including a locating tray at an interface of the vertical end and the horizontal end of the body of the upturn hinge means, the bottom of the locating tray lies on the shaft of the horizontal end, in the outer side of the vertical end are two recesses which are symmetric to the shaft line of the vertical end, two bump pearls are disposed in corresponding recesses on sides of an upright hole of an upper surface of the main body" in Claim 4 is not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of "wherein there is a locating loop slot set around an outer circumference of a lower portion of the vertical end of the body of the upturn hinge means, an upper side wall of the locating loop slot is parallel to the lower end of the upright hole of the upper face of the main body, a flexible clip is fastened to the locating loop slot and to the lower end of said upright hole" in combination with all

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remaining limitations of Claim 6 is not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of "a ladder of the ladder shaft includes a pair of vertically symmetrical wedge mouths; an A-shaped locating block having a shaft hole in an upper portion is sleeved on a thin shaft at an outer side of the wedge mouth of the ladder shaft, a waist of the locating block has a locating wedge extending to the wedge mouth of the ladder shaft, an outer side of the locating block on the thin shaft of the ladder shaft has a spring" and "the waist of the piece block extends from two side forming blocks, a rear side extends backwards forming two guide poles, a reposition spring on each pole; the button of the button-hook extends forward via the recess of the front end of the main body is located; an end of the reposition spring engages the back-end face of the button-hook, another end of the reposition spring engages the support wall of the rear of the front end of the recess of the main body" in combination with all remaining limitations of Claim 10 is not anticipated or made obvious by the prior art of record in the examiner's opinion.

For example, Xiangdi discloses a portable videodisc player with an upwardly and axially rotatable screen, comprising: a main body 10 comprising a display cover board 1 with a display screen 11; an upturn hinge means (See Figure 3) is disposed at a side edge of the main body 10 and a side edge of the display cover board 1; a cable connects the main body and the display cover board 1; wherein the main body 10 of the upturn hinge means (See Figure 3) is a T-shaped cannula, an end 3 of a horizontal end of the cannula is a hollow pipe 31 for accommodating cables; a cable (Xiangdi, para 0027) passes through an inner hole 41 of the main body 10 of the upturn hinge means

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to connect the main body 10 of the player and the display cover board 1; the display cover board 1 is rotatable within 180 degrees relative to the respective vertical and horizontal axes of its main body 10. However, Xiangdi does not disclose a hole in an opposite end of the cannula that accommodates a damper, forming a shaft with a damper, which is fixed on the side of the display cover board where a vertical end is used as a rotation shaft which is mounted on the main body. Xiangdi also does not disclose a locating tray at an interface of the vertical end and the horizontal end of the body of the upturn hinge means, the bottom of the locating tray lies on the shaft of the horizontal end, in the outer side of the vertical end are two recesses which are symmetric to the shaft line of the vertical end, two bump pearls are disposed in corresponding recesses on sides of an upright hole of an upper surface of the main body. Xiangdi also does not disclose a two-way lock latch with a button hook in a recess.

Lin discloses a hole 26 in an opposite end of a T-shaped cannula 40 that accommodates a damper 30, forming a shaft 14 with a damper 30, which is fixed on the side of a display cover board where a vertical end 62 is used as a rotation shaft which is mounted on a main body. However, Lin does not disclose a slot set in an inside wall of the horizontal end of the upturn hinge means for installing the damper, said head having rub pieces of the damper inserts into the above end of the upturn hinge means and the protruding ridge is fastened to said slot; and the damper is fixed onto the back of side wall of the recess of the display cover board. Lin also does not disclose a locating tray at an interface of the vertical end and the horizontal end of the body of the upturn hinge

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means, the bottom of the locating tray lies on the shaft of the horizontal end, in the outer side of the vertical end are two recesses which are symmetric to the shaft line of the vertical end, two bump pearls are disposed in corresponding recesses on sides of an upright hole of an upper surface of the main body. Lin also does not disclose a two-way lock latch with a button hook in a recess.

Choi discloses a recess 24a in a center of a rear end of a display cover board 24; a horizontal end of the body 28 of an upturn hinge means is disposed in the recess 24a. However, Choi does not disclose a hollow T-shaped cannula, a damper, or a two-way lock latch with a button hook in a recess.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tseng et al., Pappas, Anderson, Novin et al., Kim and Lu et al. disclose a two-way hinge that allows a display lid to rotate in two directions with a similar hinge structure as disclosed by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprokash Gandhi can be reached on (571) 272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrian S Wilson
Examiner
Art Unit 2835

asw

/Anatoly Vortman/
Primary Examiner, Art Unit 2835